

### **REMARKS**

Reconsideration and allowance of the subject application are respectfully requested. Applicant thanks the Examiner for total consideration given the present application. Claims 1-5 are pending prior to the Office Action. Claim 11 has been added and Claim 1 has been canceled through this reply. Therefore, claims 2-5 and 11 are pending. Claims 2, 5, and 11 are independent. Applicant respectfully requests reconsideration of the rejected claims in light of the remarks presented herein, and earnestly seek timely allowance of all pending claims.

### **OFFICIAL ACTION**

#### **Claim Rejection - 35 U.S.C. § 101 & 35 U.S.C. § 112, first paragraph**

The Examiner rejected claim 1 asserting that claim 1 is allegedly not supported by either an asserted utility or a well established utility. By this amendment, Applicant has canceled claim 1 and included its limitations in claim 3, making the 101 and 112, first paragraph rejections moot. Also, applicant respectfully disagrees with the Examiner's 101 and 112, first paragraph rejections to claim 1. The limitations of claim 1 are supported by a well established utility as seen in the Applicant's disclosure. For instance, the Examiner can refer to lines 17-20 of page 7, lines 8-18 of page 8, and line 15 of page 15 –line 5 of page 16 of the Applicant's disclosure.

#### **Claim Rejection - 35 U.S.C. § 112, second paragraph**

The Examiner rejected claims 1-5 under 35 U.S.C. § 112, second paragraph as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards his invention.

The Applicant has deleted the repeated phrase "carries out communication", and therefore the rejection is overcome. The Applicant has corrected "the received power" and "the interference power" in claim 2 to recite "a received power" and "a interference power", and therefore the rejection is overcome. The "means" language has been removed from claims 1-5 and the rejection is moot.

Applicant respectfully disagrees with changing “a first and a second radio station” to “first and second radio stations” because the limitation is recited correctly. The Applicant respectfully asks the Examiner to withdraw the 35 U.S.C. § 112, second paragraph rejection.

Due to the above remarks and amendments, all of the 35 U.S.C. § 112, second paragraph rejections should be withdrawn.

**Claim Rejection - 35 U.S.C. § 102(e)**

Claims 1-5 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated over Hashem et al. (U.S. Patent 2006/0126493). Claims 1-5 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated over Sano et al. (U.S. Patent 2004/0109419). Applicant respectfully traverses these rejections.

For a Section 102 rejection to be proper, the cited reference must teach or suggest each and every claimed element. *See M.P.E.P. 2131; M.P.E.P. 706.02.* Thus, if the cited reference fails to teach or suggest one or more elements, then the rejection is improper and must be withdrawn.

**Claim feature of claim 2 not taught by Hashem:**

Independent claim 2 recites, *inter alia*, “a power detection unit detecting a received power for each subcarrier and detecting an interference power from another radio station with which said second radio station is communicating.” *Emphasis added.* Applicant respectfully traverses the rejection of claim 2 based on the Hashem reference.

Hashem merely discloses measuring a signal to interference (S/I) ratio (paragraph 20). Hashem fails to teach or suggest “a power detection unit detecting a received power for each subcarrier and detecting an interference power from another radio station with which said second radio station is communicating” as recited in claim 2. Hashem only discloses measuring a signal to interference (S/I) ratio, and does not teach or suggest detecting received power and interference power.

**2<sup>nd</sup> Claim feature of claims 2 and 5 not taught by Hashem:**

Independent claim 2 recites, *inter alia*, “a subcarrier selection unit selecting, based on a reception state and an interference state of each subcarrier that have been returned from said second radio station, only a subcarrier with which a desired transmission rate can be achieved in said second radio station, wherein only the subcarrier that has been selected by said subcarrier selection unit is selected and modulated for communication” and independent claim 5 recites, *inter alia*, “a subcarrier selection unit selecting, based on the information regarding said signal characteristic of each subcarrier that have been returned from said second radio station, only a subcarrier with which a desired transmission rate can be achieved in said second radio station, wherein only the subcarrier that has been selected by said subcarrier selection unit is selected and modulated for communication.” *Emphasis added.* Applicant respectfully traverses the rejections of claims 2 and 5 based on the Hashem reference.

Hashem merely discloses identifying an acceptable group of subcarriers (paragraphs 7 and 9) and an unacceptable group of subcarriers (paragraph 9). The average channel quality of the group of subcarriers is calculated and transmitted. The grouping is done in order to reduce overhead (paragraph 30). As seen in block 92 of Figures 3 and 5, and block 136 of Figures 4 and 6, the signal is not used for transmission until all of the subcarriers in the group are encoded. Hashem does not disclose only one subcarrier is selected and modulated. Therefore, Hashem fails to teach or suggest “selecting ... only a subcarrier with which a desired transmission rate can be achieved in said second radio station, wherein only the subcarrier that has been selected by said subcarrier selection unit is selected and modulated for communication” as recited in independent claim 2 and “selecting ... only a subcarrier with which a desired transmission rate can be achieved in said second radio station, wherein only the subcarrier that has been selected by said subcarrier selection unit is selected and modulated for communication” as recited in independent claim 5.

Dependant claims 3-4 are allowable for the deficiencies of the Hashem reference for independent claim 1 as set forth above.

**Claim feature of claims 2 and 5 not taught by Sano:**

Independent claim 2 recites, *inter alia*, “a power detection unit detecting a received power for each subcarrier and detecting an interference power from another radio station with which said second radio station is communicating” and independent claim 5 recites, *inter alia*, “a power detection unit detecting a signal characteristic from a radio station other than said first radio station with which said second radio station is communicating, for each subcarrier.” *Emphasis added.* Applicant respectfully traverses the rejections of claims 2 and 5 based on the Sano reference.

Sano merely discloses a frequency hopping communication system. As the disclosure of Sano supports, the frequency hopping communication systems are known to be used for communication between a transmitter and a receiver providing a means of security between the transmitter and the receiver. Sano only discloses the communication between the transmitter and the receiver. Sano does not disclose the second radio station is in communication with another radio station besides the first radio station. Therefore, Sano fails to disclose “a power detection unit detecting a received power for each subcarrier and detecting an interference power from another radio station with which said second radio station is communicating” as recited in independent claim 2 and “a power detection unit detecting a signal characteristic from a radio station other than said first radio station with which said second radio station is communicating, for each subcarrier” as recited in independent claim 5.

Dependant claims 3-4 are allowable for the deficiencies of the Sano reference for independent claim 1 as set forth above.

Conclusion

Therefore, for at least these reasons, all claims are believed to be distinguishable over the references of Hashem and Sano. It has been shown above that the cited references, individually or in combination, may not be relied upon to show at least these features. Therefore, claims 2-5 are distinguishable over the cited references.

In view of the above remarks, Applicant believes the pending application is in condition for allowance.

A new method claim 11 is added in this reply which includes the patentable distinct features of the apparatus claims.

Also, because claim 2 is allowable for the reasons above, the restriction to dependant claims 7-8 should be withdrawn and allowed.

Applicant respectfully requests that the claims 2-5 and 11 be allowed.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned, at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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